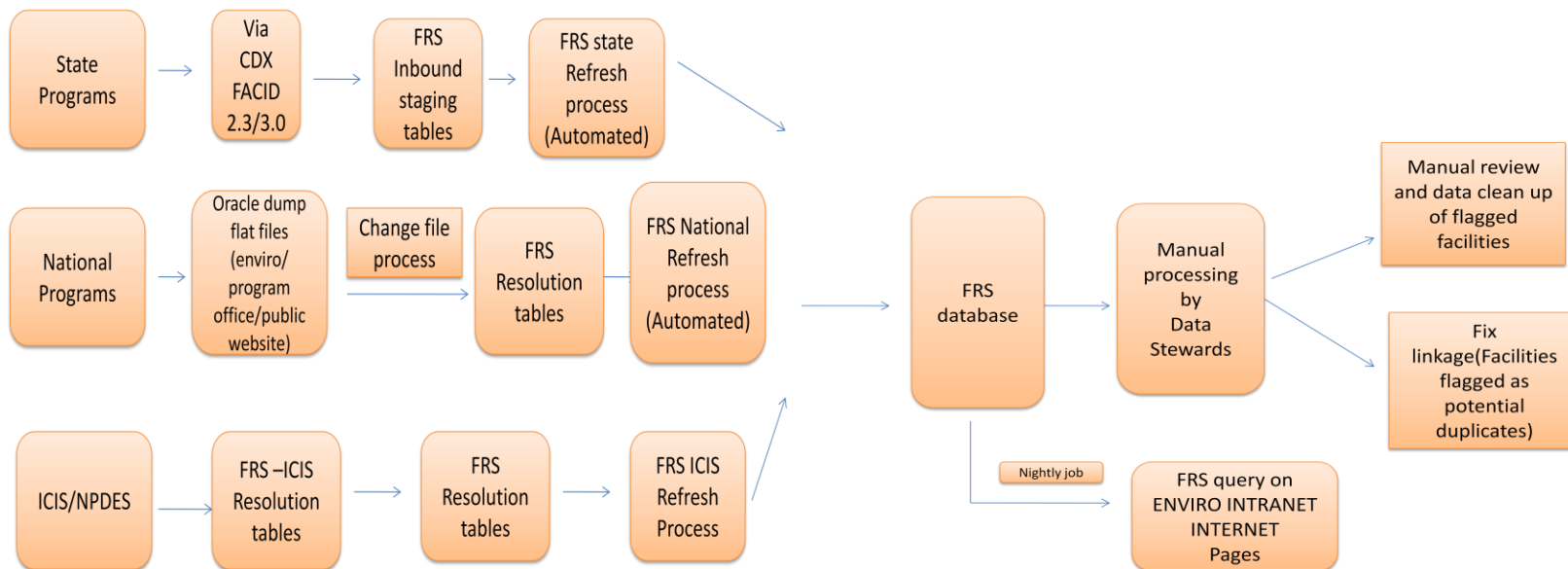# What Happens to Data in FRS?

The above chart is an overview of what happens to data inside FRS.

At each of the refresh stages there are three processes that happen on the "backend".

They are:

<u>Insert Process:</u>

A new program facility /Interest and associated child records are added to FRS and they are either linked to existing FRS record(FRS ID) or a new FRS record(with new FRS ID) is created.

<u>Update Process:</u>

An existing program facility/Interest and associated child records are updated completely and FRS record is updated completely or partially based on different scenarios.

<u>Delete Process:</u>

A program interest and associated child records are deleted and FRS record is deleted if it's not associated to any other interests.
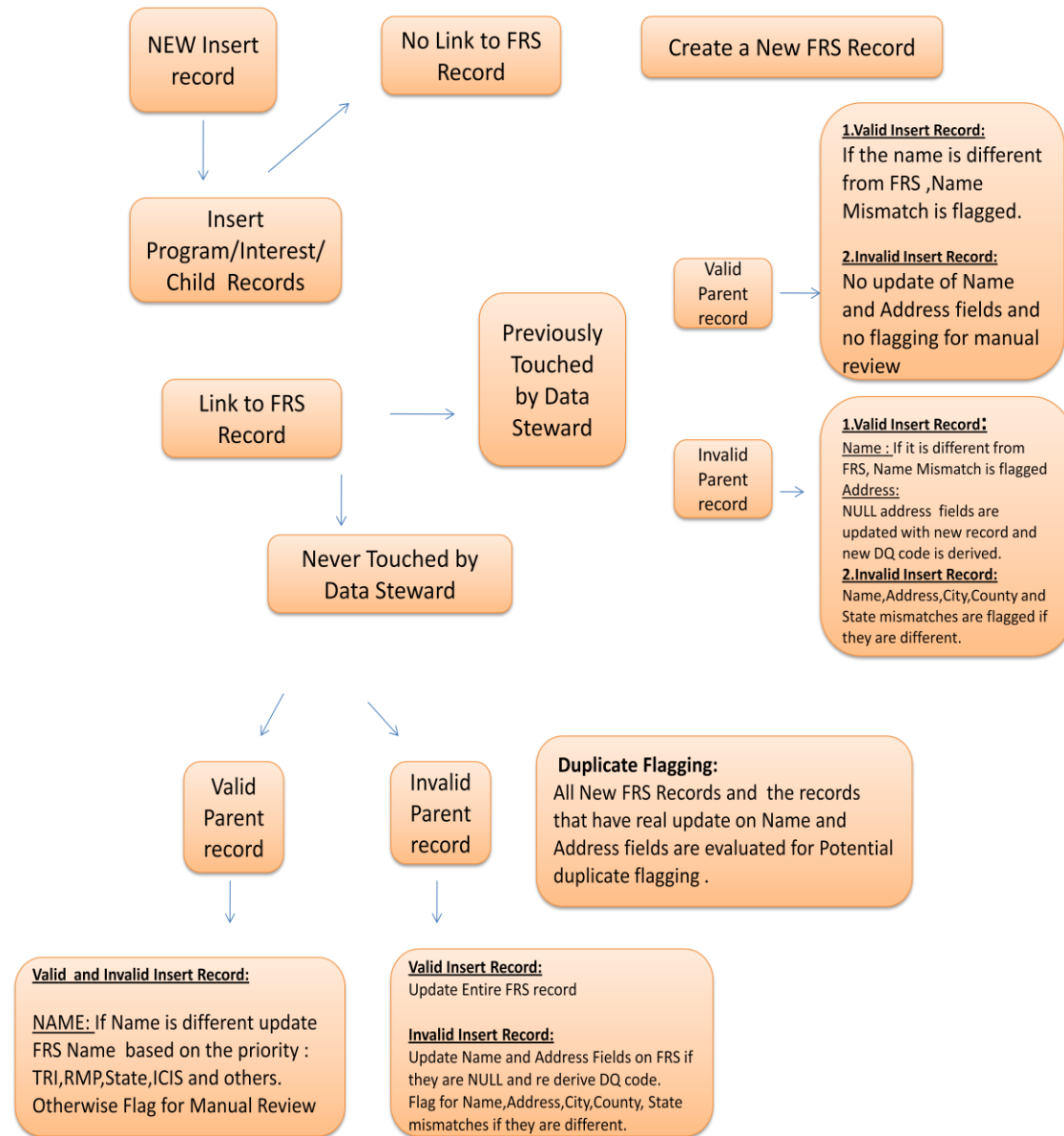
The Insert Process

- Determines when a new record is put into FRS, either as a new facility or linked using automated validity checks (see webinar #1).
- If the record is entirely new, and not lined another record, the process is straightforward

If it needs to be linked (see webinar #1) there are four possible outcomes -

1) If the record has been touched by a data steward and the parent is valid, an insert will happen if;
   a. The inserted record is valid and
      i. The name is different and the name mismatch flag has been used.
   b. The inserted record in invalid and
      i. There are no updates to the name or address field, and nothing has been flagged for manual review.
2) If the record has been touched by a data steward and the parent record is invalid, an insert will happen if;
   a. The insert record is valid and
      i. The name is different, with the use of the name mismatch flag or
      ii. Null address fields are updated with new data quality codes being derived.
   b. The insert record is invalid and
      i. Name or location fields are flagged as mismatched and actually different.
3) If the record has not been touched by a data steward and the parent is valid, an insert will happen if;
   a. The name is different, the new name being selected from an established priority order.
4) If the record has not been touched by a data steward and the parent record is invalid, an insert will happen if;
   a. The insert record is valid and
      i. There is an update of the entire FRS record
      ii. There is an update to name or address fields, a new data quality code is derived and legitimate mismatches are flagged

The Insert Process

NEW Insert record

No Link to FRS Record

Create a New FRS Record

Insert Program/Interest/ Child Records

Link to FRS Record

Previously Touched by Data Steward

Valid Parent record

1.Valid Insert Record:
If the name is different from FRS ,Name Mismatch is flagged.

2.Invalid Insert Record:
No update of Name and Address fields and no flagging for manual review

Invalid Parent record

1.Valid Insert Record:
Name : If it is different from FRS, Name Mismatch is flagged
Address:
NULL address fields are updated with new record and new DQ code is derived.
2.Invalid Insert Record:
Name,Address,City,County and State mismatches are flagged if they are different.

Never Touched by Data Steward

Valid Parent record

Invalid Parent record

Duplicate Flagging:
All New FRS Records and the records that have real update on Name and Address fields are evaluated for Potential duplicate flagging .

Valid and Invalid Insert Record:

NAME: If Name is different update FRS Name based on the priority : TRI,RMP,State,ICIS and others.
Otherwise Flag for Manual Review

Valid Insert Record:
Update Entire FRS record

Invalid Insert Record:
Update Name and Address Fields on FRS if they are NULL and re derive DQ code.
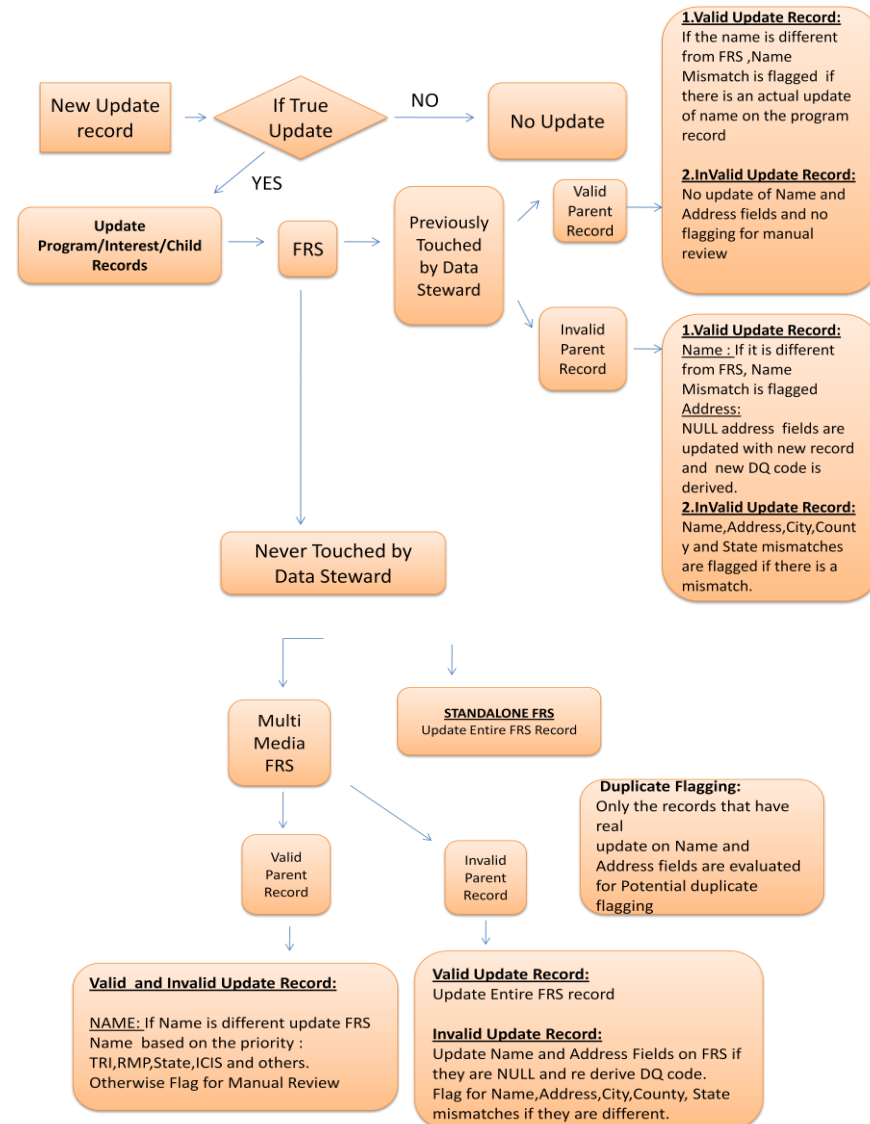Flag for Name,Address,City,County, State mismatches if they are different.

The Update Process

- Determines when a FRS record is updated with new information.
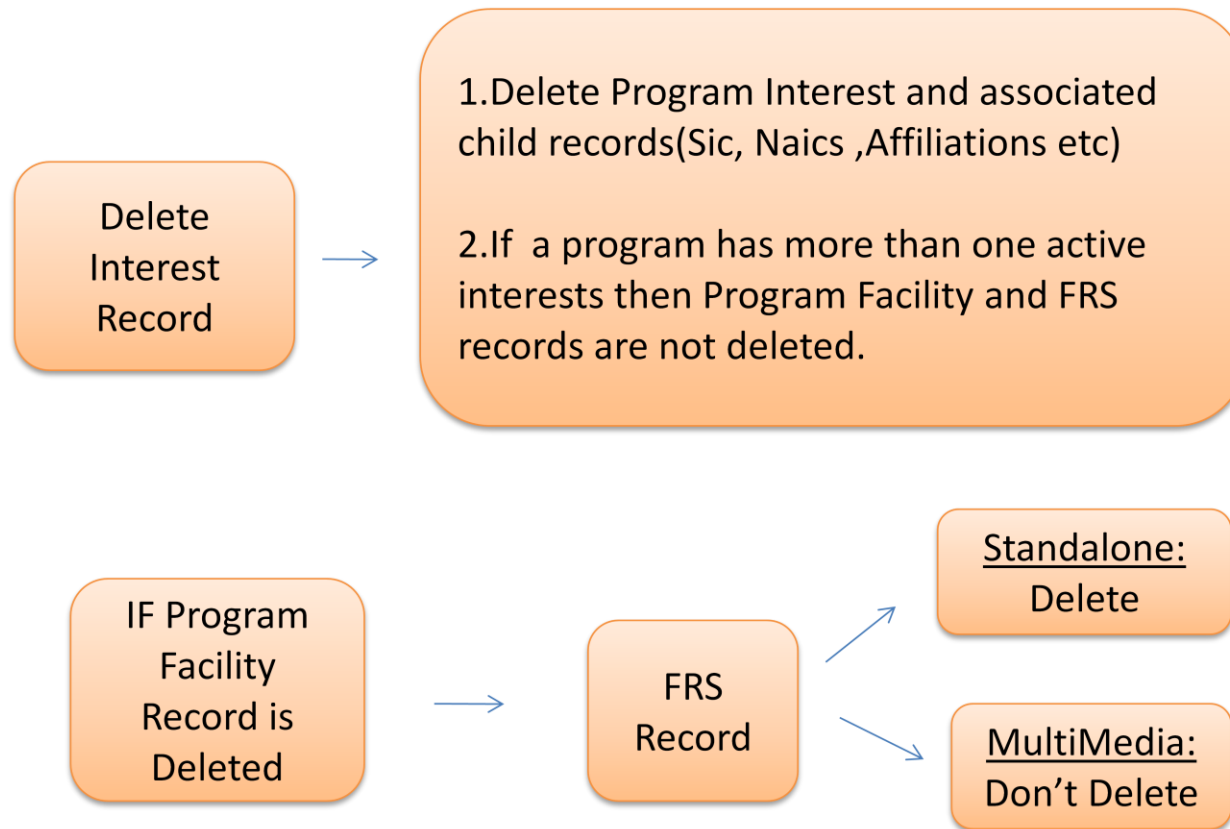- This process also utilizes the automated validity check (see webinar #1)

If there is a true need for an update; there are four possible outcomes

1) If the record has been touched by a data steward and the parent record is valid, an update will happen if;
   a. The updating record is valid and
      i. The name is different than what is in FRS, with name mismatch flagged or
      ii. If the program record has updated the name
   b. The updating record is invalid and
      i. There have been no updates of the name or address fields and the name mismatch flag have not been used.
2) If the record has been touched by a data steward and the parent record is invalid, an update will happen if;
   a. The updating record is valid and
      i. Name is different than the parent, with name mismatch flagged or
      ii. There is an update of the name in the program record
   b. The updating record is invalid and
      i. Name or location fields are mismatched and flagged.
3) If the record has not been touched by a data steward and the parent record is valid an update will happen if;
   a. The name is different, with the new name being chosen based upon the priority list
4) If the record has not been touched by a data steward and the parent record is invalid, an update will happen if;
   a. The updating record is valid and
      i. there is an update of the entire FRS record or
   b. The updating record is invalid and
      i. Name and location fields that were null are updated with a data quality code derived or
      ii. Name or location fields are mismatched.

The Update Process

New Update record

If True Update

NO → No Update

YES

Update Program/Interest/Child Records

FRS

Previously Touched by Data Steward

Valid Parent Record

Invalid Parent Record

1.Valid Update Record:
If the name is different from FRS ,Name Mismatch is flagged if there is an actual update of name on the program record

2.InValid Update Record:
No update of Name and Address fields and no flagging for manual review

1.Valid Update Record:
Name : If it is different from FRS, Name Mismatch is flagged
Address:
NULL address fields are updated with new record and new DQ code is derived.
2.InValid Update Record:
Name,Address,City,County and State mismatches are flagged if there is a mismatch.

Never Touched by Data Steward

Multi Media FRS

STANDALONE FRS
Update Entire FRS Record

Valid Parent Record

Invalid Parent Record

Duplicate Flagging:
Only the records that have real
update on Name and Address fields are evaluated for Potential duplicate flagging

Valid and Invalid Update Record:

NAME: If Name is different update FRS Name based on the priority : TRI,RMP,State,ICIS and others. Otherwise Flag for Manual Review

Valid Update Record:
Update Entire FRS record

Invalid Update Record:
Update Name and Address Fields on FRS if they are NULL and re derive DQ code.
Flag for Name,Address,City,County, State mismatches if they are different.

The Delete Process

Delete Interest Record →

1. Delete Program Interest and associated child records(Sic, Naics ,Affiliations etc)

2. If a program has more than one active interests then Program Facility and FRS records are not deleted.

IF Program Facility Record is Deleted → **FRS Record**

→ Standalone: Delete

→ MultiMedia: Don't Delete
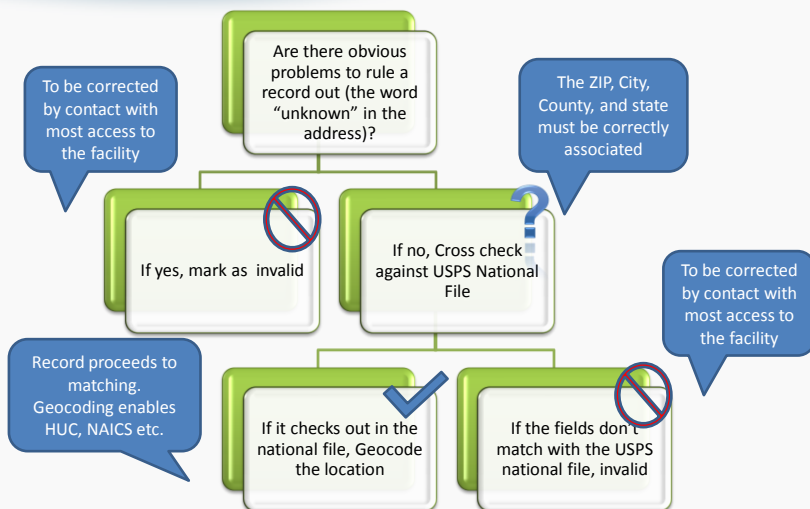
Records are deleted on two conditions

1) When there is a delete order from the state, the state child is deleted
2) When there is only one environmental interest for the facility (and we receive an order for its deletion), both the child and the parent are deleted.

Clean & Validate Source Data

Are there obvious problems to rule a record out (the word "unknown" in the address)?

To be corrected by contact with most access to the facility

The ZIP, City, County, and state must be correctly associated

If yes, mark as invalid

If no, Cross check against USPS National File

To be corrected by contact with most access to the facility

Record proceeds to matching. Geocoding enables HUC, NAICS etc.

If it checks out in the national file, Geocode the location

If the fields don't match with the USPS national file, invalid

Match & Integrate Facility Data

- **Scoring method:** to determine if two records are the same facility
    - **25 points**, parsed street number
    - **50 points**, matching standardized city name, standardized county name, state and zip
- **Score 100:** an environmental interest is created for the source, and associated to the matched FRS record
- **Score 50—100:** FRS creates a new record and a new associated environmental interest, the new record is identified as having possible matches
- **Score <30:** FRS creates a new record with a new interest